

**ComEd**

An Exelon Company

powering lives

An aerial night view of a city skyline, likely Chicago, with numerous skyscrapers illuminated. A semi-transparent blue and red curved banner arches over the city. A network of white lines connects several circular icons: a house, a Wi-Fi symbol, a solar panel, a battery, a car, and a radio tower. The text 'ComEd 2020 Summer Preparedness ICC Policy Session May 27, 2020' is overlaid in white at the bottom left.

# ComEd 2020 Summer Preparedness ICC Policy Session May 27, 2020

# Assisting Customers & Ensuring Readiness During COVID-19

# Assisting Our Customers

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## Help Amidst COVID-19

- Voluntarily suspended service disconnections for nonpayment and waived new late payment charges. Reconnected customers disconnected for a non-safety issue.
- Waived reconnection fees and reinstatement fees for payment arrangements.
- Worked with customers on a case-by-case basis to help them identify more flexible payment arrangements and bill assistance programs.
- Extended deferred payment arrangements from 12 months to now up to 24 months.
- Expanded our Supplemental Arrearage Protection Program (SARP) that eases the financial stress of paying for power by providing a monthly arrearage credit of up \$1,000 a year while encouraging energy efficiency



From our customers:

*"@ComEd Can you imagine no electricity right now! ComEd workers are our heroes too! Thank you!"*

*"Thank you for your service. I can't even imagine how much worse it would become if we lost our power."*



# Supporting Our Communities During COVID-19 Pandemic

## Charitable donations

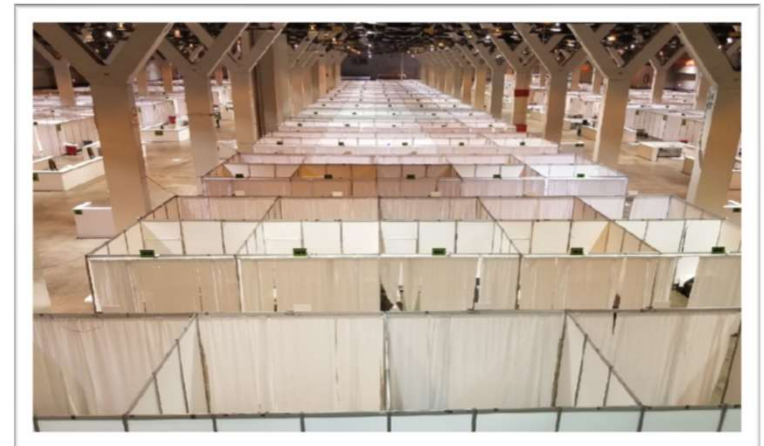
- \$2M contribution by ComEd, the Exelon Foundation and Exelon Generation to Gov. Pritzker's new COVID-19 response fund.
- Contributed \$250,000 to United Way of Metro Chicago and the Chicago Community Trust's COVID-19 Response Fund to support efforts to provide essential services during the COVID-19 pandemic

## Operational Excellence

- ICC granted ComEd special permission to modify Rider NS to assist with temporary services for essential operations like hospitals and police stations.
- Monitor needs around temporary hospital/testing facilities being established in response to COVID-19
- Proactive inspections of automatic throw-over (ATO) switchgears, aerial circuits, and vaults serving hospitals, COVID-19 testing sites, and special COVID-19 response sites.
- Increased monitoring of feeder loads due to expected shift in load from commercial to residential due to more people working from remote locations



ComEd deployed the port-a-bridge to connect two adjoining pieces of property and enable traffic flow to a Chicago IDOT facility converted for COVID-19 testing



Supported the conversion of McCormick Place into an alternate care facility for COVID-19 patients

# Maintaining Operations During COVID-19 Pandemic

ComEd's commitment to the safety and well being of our employees

## Ensuring Business Continuity

- Sr. Leadership held daily COVID-19 calls to discuss overall readiness plan
- Conducted weekly company wide COVID-19 calls led by CEO, COO, and the Sr. Leadership team
- Mobilized 2,400 Office personnel to work remote; 40% of workforce
- Enhanced cleaning strategies implemented at all facilities
- Procurement and outfitting essential personnel with appropriate personal protective equipment, in addition to continuation of social distancing best practices
- Implementation of additional precautionary measures at Operations Control Centers (OCC), Transmission System Operations (TSO) and 24 hour call centers given critical nature of activities performed at these facilities. Alternate control and call center facilities in operation at various locations.

## Ensuring System Readiness

- The System Incident Commander (SIC) continuously monitors conditions, coordinates planning efforts, and collaborates with stakeholders to mitigate impacts and risk
- Prioritized critical summer readiness projects and have emergency contingency plans as necessary
- Continuous engagement with local, state, and federal government and external partners to evaluate ever changing executive orders and regulations surrounding COVID-19
- Proactively performed customer outreach to large C&I customers to let them know we are still being attentive to their needs.



Working remotely on the front lines



Local distillery transitions to making hand sanitizer to combat COVID-19

# Assuring Preparedness During COVID-19

## Storm Response Improvement

- Storm Improvement (SI) 9 Teams are currently undertaking tasks to investigate and improve several areas of Storm Restoration. Areas of focus are:
  - Make-Safe Process,
  - External Crew Mobilization/External Crew Dispatch rooms
  - Trouble Ticket Management
  - Mutual Assistance.
  - Conducting effectiveness review of Storm Improvements initiated by SI Teams 1 through 8.

## Storm Readiness

- Acquired 10 base camp trailers to operate two standalone staging areas
- Acquired 19 additional 2M generators, bringing fleet total to 36
- Spare equipment and contingency/flood mitigation plans in place
- Developed cleaning schedule between shifts at all storm reporting locations
- Established remote reporting capabilities for 2/3 of storm roles, more under review
- Coordinated non-mutual assistance affiliated contractors available for rapid deployment
- Positive outreach to all Regional Mutual Assistance groups to align support



Practicing social distancing while on the job site



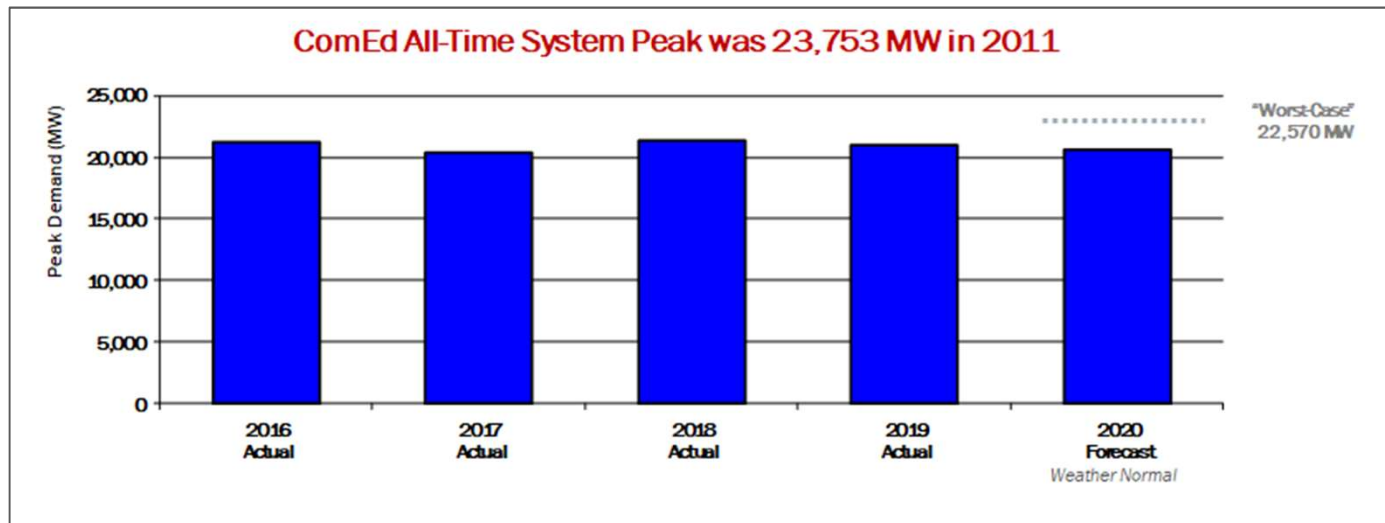
Wearing appropriate PPE to ensure the safety of our workers and customers

# 2020 Summer Readiness

# Prepared for Summer 2020

ComEd Well Positioned to Provide Reliable Service During the Summer

## 2020 Load Performance Forecast



## 2020 Load Performance & Summer Forecast

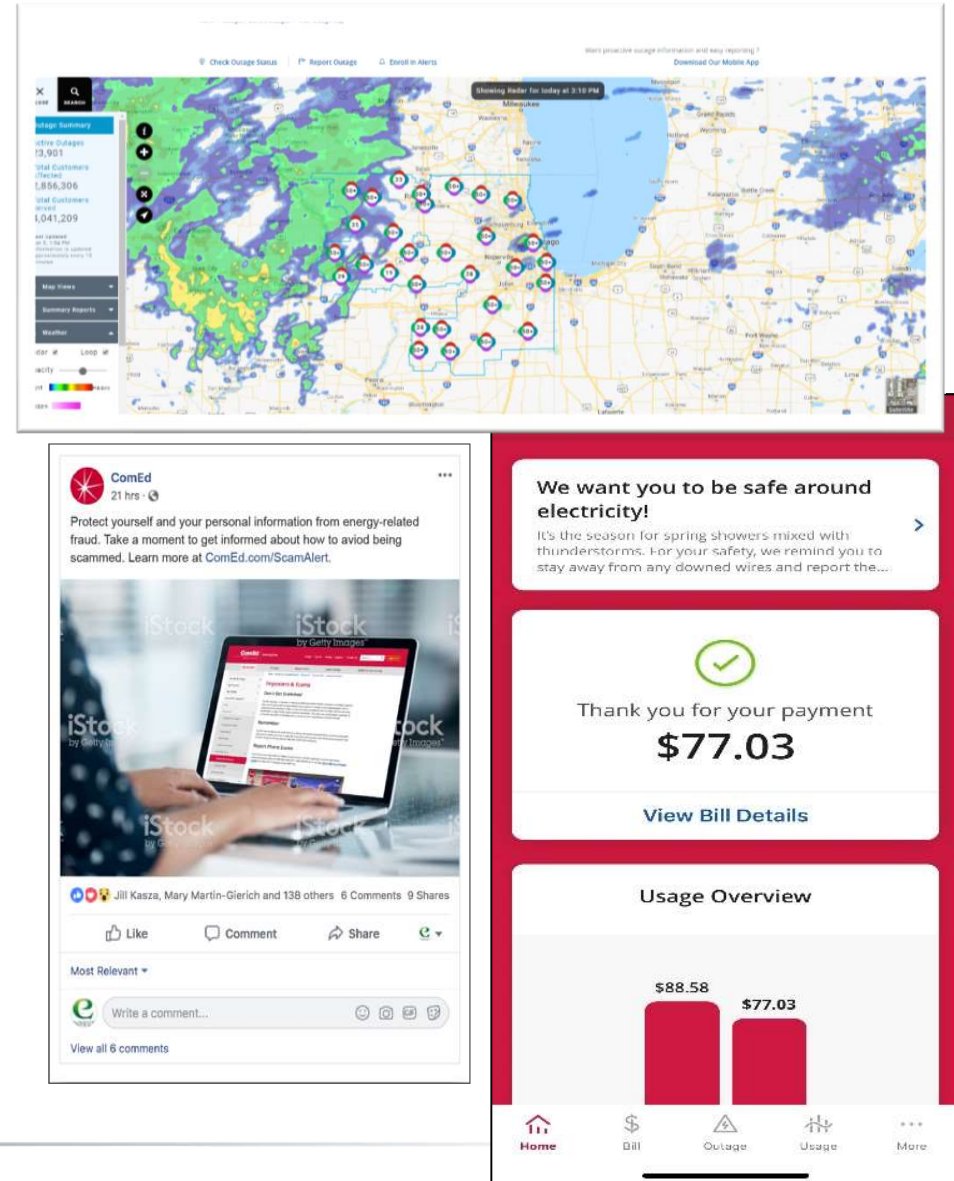
- PJM's 90/10 summer peak load forecast for ComEd: 22,570 MW
- Above average temperatures for June, July and August (average of 80 °)
- Above average precipitation (10.6 in.)



## Customer Communication

## Technology & Call Center Readiness

- Conducted storm preparedness drills to improve outage response and customer advocacy
- Enhanced ComEd website, phone system and mobile apps to make channels more effective to interact with customers
- Enhanced outage map functionality and continue to increase outage notification enrollments with over 1 million customers to date.
- Municipal Portal to increase system reliability and mitigate downtime



# ComEd's Bold Plan For Tomorrow

# Building On Our Best Year Yet

## Operational Highlights

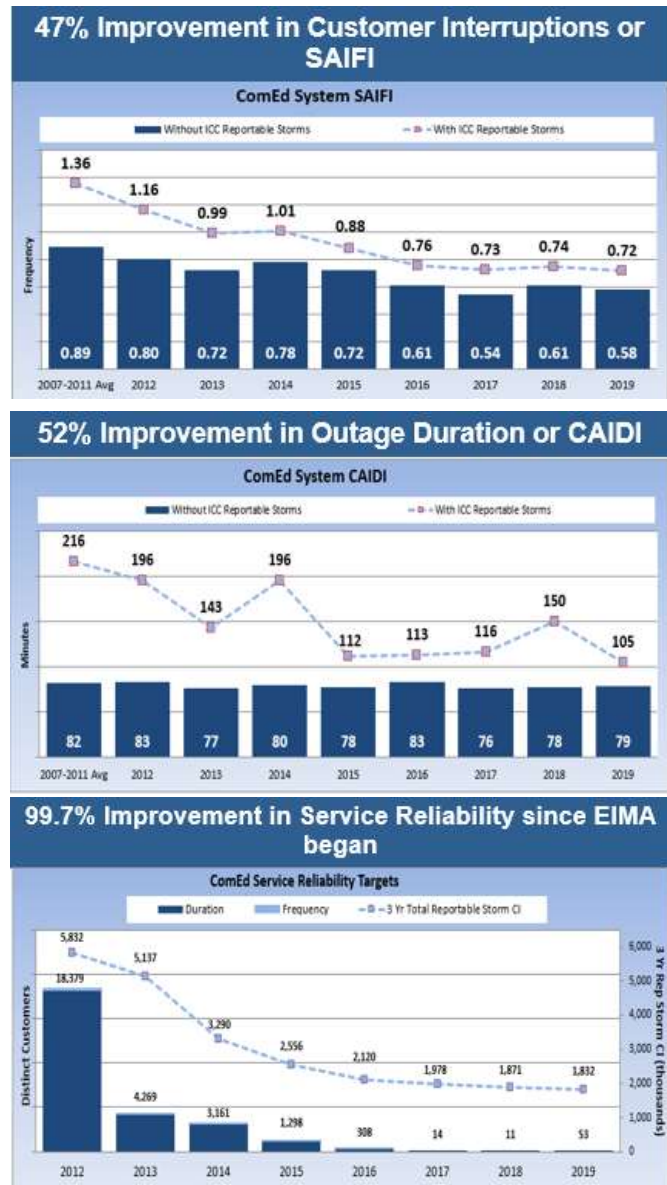
**Safety:** Top quartile OSHA Recordable rate

**Reliability:** Over 70% improvement compared to pre-EIMA (2007-2011 avg)

- In 2019, ComEd won the ReliabilityOne Award for Most Improved Utility from PA Consulting
- ComEd's Customer Satisfaction Index (CSI) of 8.17 is best on record
- 2019 Customers Reliability Complaints is best on record
  - 80% of ComEd customers had 0 or 1 interruption; Over half of customers had 0 interruptions – both are best on record performances
  - 80% reduction in customers experiencing 12-or-more hour interruptions during storms when compared to pre-EIMA

**EIMA:** Achieved all EIMA metrics for third consecutive year

- Avoided ~6M customer interruptions and contributed to over \$2B in societal savings since 2012
- Avoided 1.9 million truck rolls since 2012 due to smart meters resulting in \$146 million in avoided costs



# Our Four Pillars

## Putting our clean energy to work

Using our clean energy advantage to power new clean transportation technologies and healthier air for our children.

## Clean and affordable power when we need it

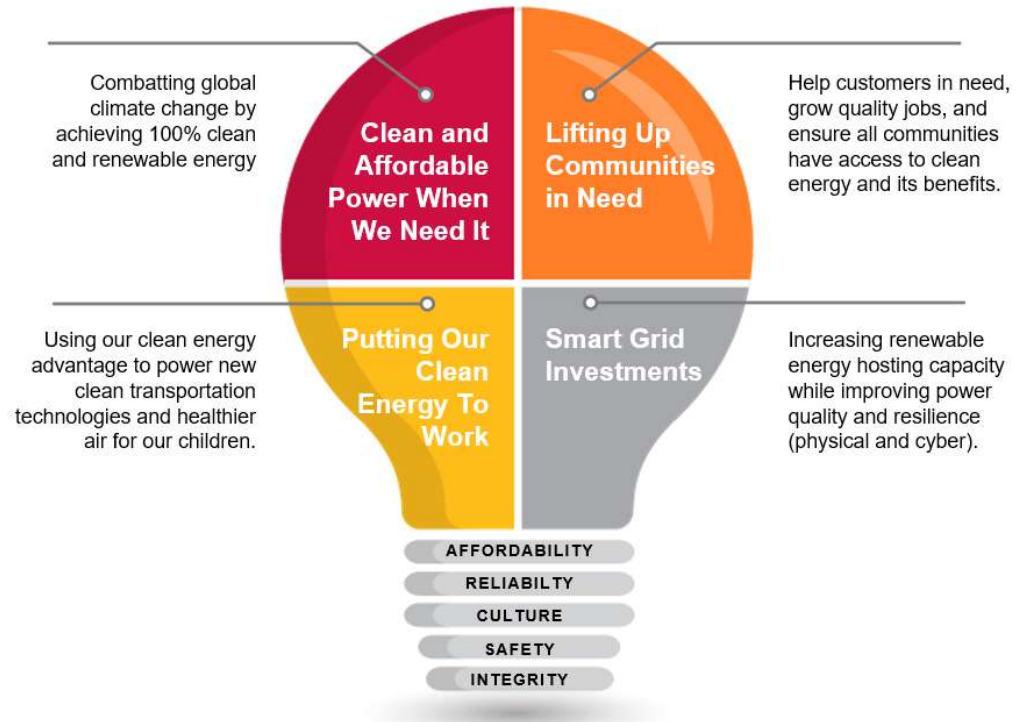
Combatting global climate change by achieving 100% clean and renewable energy.

## Lifting up communities in need

Help customers in need, grow quality jobs, and ensure all communities have access to clean energy and its benefits.

## Smart grid investments

Increasing renewable energy hosting capacity while improving power quality and resilience (physical and cyber).

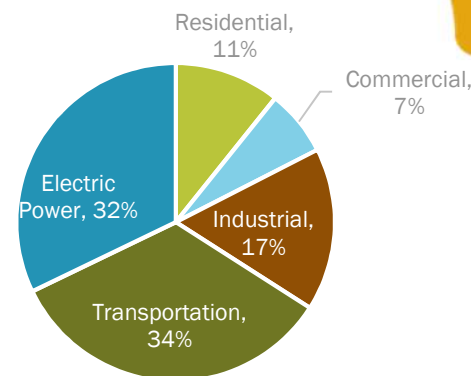




# Using Our Clean Energy Advantage - Beneficial Electrification

Putting Our  
Clean Energy  
To Work

- Thanks to our energy efficiency and clean energy efforts, the electric power sector now represents under 1/3rd of Illinois' CO<sub>2</sub> emissions. 92% of our load is sourced from clean energy
- The other 2/3<sup>rd</sup> of emissions are from the transportation sector and other commercial, industrial, and home processes
- Emissions from transportation and other technologies are major contributors to climate change and local health issues in our communities



Illinois CO<sub>2</sub> Emissions (2017)

## Supporting our Customers

- ComEd will launch a web-based Electric Vehicle (EV) Toolkit in June
- Customer fleet electrification and optimization pilot

Illinois should leverage our clean energy advantage to reduce emissions in these sectors by shifting their energy use from fossil fuels to electricity. Doing so would reap benefits for our communities and businesses.

# The Energy Future Our Customers Want

Clean and  
Affordable  
Power When  
We Need It

## Distributed Energy Resources (DER)

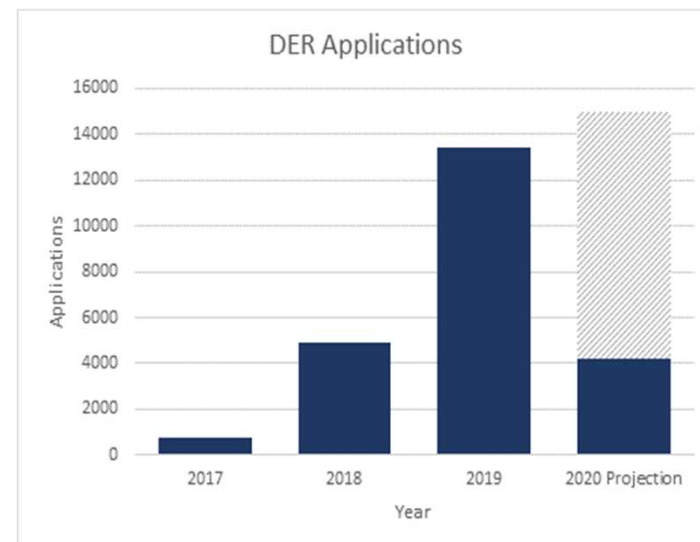
- Since the passage of FEJA, the volume of interconnection requests has increased substantially within the ComEd territory
- Launched industry leading Interconnection Portal which includes a community solar calculator and capacity map to education and guide customers on their solar journey
- Issued over \$8.0M in Distributed Generation Rebates; equivalent to over 32 MW of installed capacity

## Technical Enhancements

- Automated technical screenings of Level 1 DER applications (primarily residential) significantly reduced processing time, increasing customer satisfaction, and providing scalability for the future

## Energy Efficiency

- In 2019, invested over \$351M and exceeded 1.63M MWh annual energy savings goal (pending evaluation)
- Provided homeowners over 324,000 rebates
- Launched a new website to highlight R&D pilots and solicit new ideas: [www.comedemergingtech.com/](http://www.comedemergingtech.com/)



# Assisting Our Customers

Lifting Up  
Communities  
in Need

## Lasting Support

- Further strengthened advocacy relationships with local housing authorities, hospitals, municipalities and faith-based organizations to expand awareness of our programs and to engage within communities.
- Attendance at community events resulted in more than 11,700 direct interactions with customers including seniors, veterans, and military personnel.
- Developed a comprehensive financial uplift plan providing additional support and flexibility for customers.
- Municipal Payment Agreements, launched in 2019, provides financially distressed communities a pathway to bring their accounts current.
- Incorporating feedback from a series of stakeholder forums to rebalancing and prioritizing CARE program portfolio to maximize the reach and impact of assistance.

## Protecting Our Customers

In 2019, ComEd launched and now continues an aggressive Powering People multi-media education and awareness campaign on Consumer Protection related to various scams and deceptive practices.



# Driving Economic Opportunity for Communities in Need

Lifting Up  
Communities  
in Need

## Workforce Development

- Funded Workforce Development Training Programs under FEJA in late 2017 for four-year period; programs launched in 2018 and will continue through 2021
- Distributed \$10M in grants to 11 nonprofit organizations to implement training in three categories: Solar Pipeline, Multicultural and Craft Apprenticeships
- Trained 599 participants in 2019 with a 94% completion rate vs 285 participants with a 82% completion rate in 2018; 79% or 466 participants gained employment
- Trained 66 returning citizens in 2019 vs 49 in 2018; to date 118 returning citizens have been trained and 74 (65%) placed in jobs
- Future \$10M disbursements will occur in 2021 and 2025

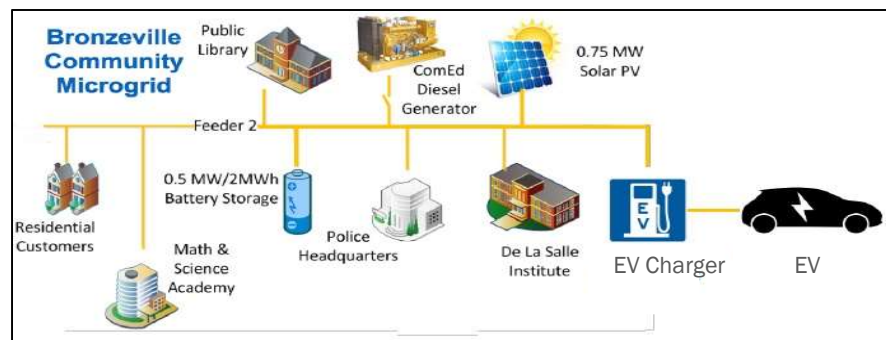
## Supplier Diversity

- Our total spend of \$738 million was 41% of our total supply chain spend – best on record
- Achieved \$31.09M in diverse supplier spend within Energy Efficiency program, exceeding our goal and increasing year over year diverse spend by 18%

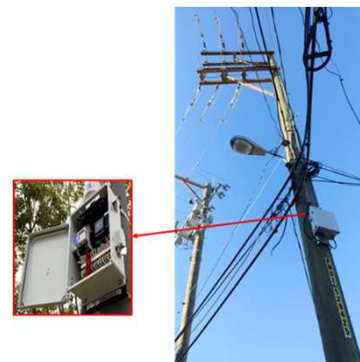




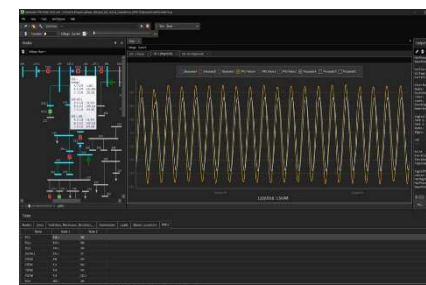
# Modernizing the Grid into the Future



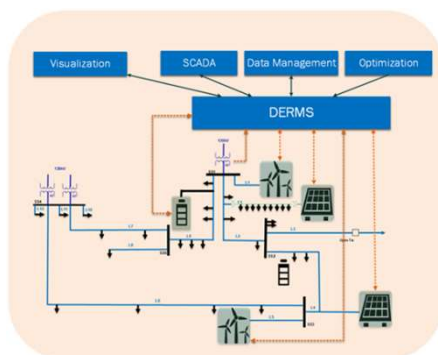
- With support from the DoE, ComEd is demonstrating a cyber-secure extreme fast charging (XFC) EV station within the Bronzeville Microgrid
- ComEd is also demonstrating how 5 EV charging stations in Bronzeville would support the needs of multi-unit dwellings (MUD)



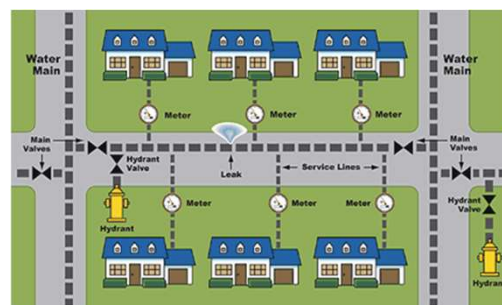
ComEd is deploying advanced sensors including distribution phasor measurement units (PMUs) to provide enhanced situation awareness for reliability and resiliency



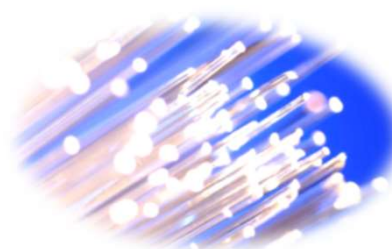
Distributed Linear State Estimation (DLSE) represents one advanced capability enabled by PMUs that ComEd is demonstrating, enhancing observability and cyber-security



ComEd is demonstrating a Distributed Energy Resource Management System (DERMS) to better integrate renewable energy providing customer benefits



ComEd is demonstrating how the AMI can provide incremental value to the water infrastructure (water AMI)



Underlying all of these capabilities is an **advanced communications infrastructure** that enables this higher level of service



To help develop the workforce of the future, ComEd is initiating advanced **STEM** programs serving hundreds of students

# Improving Reliability and Resiliency through Innovation

- Demonstrated the **microgrid master controller** which provided coordinated control of microgrid components as well as clustering capabilities.

## Microgrid Master Controller



- Develop and demonstrate **microgrid integrated solar storage technology (MISST)** to support the use of solar PV, via battery energy storage system, smart inverters and microgrid master controller

## SHINES



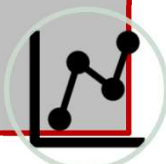
- Develop and demonstrate a **blockchain based energy platform** for energy management and demand response applications

## Blockchain Technology



- Develop sensors with advanced features to support DER penetration: **Sensors with Intelligent Measurement Platform and Low-Cost Equipment (SIMPLE)**

## SIMPLE



- Develop **federated architecture of DER management solutions (FAST-DERMS)** to manage a broad range of DERs across the grid for reliability and resiliency

## FAST-DERMS



- Enable **networked microgrids and component DERs to operate in a distributed manner** to support resilient operation of the power system

## Citadels



# ComEd is Prepared

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Leading the way to support and **UPLIFT** our customers during unprecedented times

Ready to provide **RELIABLE** electric service to customers during the summer months

Preparing a system to meet the challenges of today and tomorrow through our strategic  
**SMART GRID INVESTMENTS**

Looking to the future to ensure **ALL** communities have access to clean and affordable  
**POWER**

**TRANSFORMING** our communities to improve air quality and the health of our  
communities

## Questions?

**ComEd**®

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**powering lives**